## **Abstract**

The invention provides an IP switching based radio network controller. The radio network controller comprises a plurality of functional modules, at least comprising: an ATM interface module, an interface management module, a radio signaling management module and a radio bearer processing module, characterized in that, the radio network controller replaces an ATM switch with an IP switching network to achieve data and signaling exchange among the above functional modules in the radio network controller. Said functional modules respectively comprise at least one functional board, and the functions of each of the functional modules are respectively achieved in different functional boards. The radio network controller of the invention has the advantages of low cost, simple configuration and management, and easy to achieve the system.